

Listing of Claims:

1. (Previously Presented) A method for reducing odor, said method comprising:
forming a coordination complex between a transition metal and a polydentate compound wherein said polydentate compound is a polyalkylimine;
crosslinking said polydentate compound, wherein said crosslinking renders said polydentate compound substantially water-insoluble; and
contacting said coordination complex with an odorous compound so that the one or more active sites of the transition metal capture the odorous compound.
2. (Original) A method as defined in claim 1, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.
3. (Canceled)
4. (Original) A method as defined in claim 1, wherein said polydentate compound contains positively charged ligands.
5. (Original) A method as defined in claim 1, wherein said polydentate compound contains one or more primary amines, secondary amines, tertiary amines, or combinations thereof.
6. (Canceled)
7. (Previously Presented) A method as defined in claim 1, wherein said polydentate compound is polyethyleneimine, polypropyleneimine, or a dendrimer thereof.
8. (Canceled)
9. (Previously Presented) A method as defined in claim 1, wherein a crosslinking agent facilitates said crosslinking of said polydentate compound.

10. (Original) A method as defined in claim 9, wherein said crosslinking agent is selected from the group consisting of polyhydric alcohols, polyaziridines, epoxies, haloepoxies, polyaldehydes, polyisocyanates, and combinations thereof.

11. (Original) A method as defined in claim 10, wherein said crosslinking agent is an epoxy that contains at least two epoxide groups.

12. (Original) A method as defined in claim 10, wherein said crosslinking agent is epichlorohydrin.

13. (Original) A method as defined in claim 1, further comprising combining high-surface area particles with said transition metal and said polydentate compound, said particles acting as a carrier for said coordination complex.

14. (Original) A method as defined in claim 13, wherein said particles are formed from silica, alumina, or combinations thereof.

15. (Original) A method as defined in claim 13, wherein said particles have an average size of less than about 100 nanometers and a surface area of from about 50 to about 1000 square meters per gram.

16. (Original) A method as defined in claim 13, wherein said particles have a negative zeta potential.

17. (Original) A method as defined in claim 1, further comprising applying said coordination complex to a substrate.

18. (Original) A method as defined in claim 17, wherein said substrate comprises a nonwoven, woven, or paper web.

19. (Original) A method as defined in claim 17, wherein said substrate comprises cellulosic fibers.

20. (Original) A method as defined in claim 19, wherein said coordination complex is chemically grafted to one or more molecules present on said substrate.

21. (Original) A method as defined in claim 1, wherein said odorous compound is selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

22. (Previously Presented) A method for reducing odor, said method comprising:
forming a coordination complex between a transition metal and a polyalkylimine, said transition metal being selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof;

crosslinking said polyalkylimine, wherein said crosslinking renders said polyalkylimine substantially water-insoluble;

applying said coordination complex to a substrate that comprises cellulosic fibers; and

contacting said substrate with an odorous compound so that the one or more active sites of the transition metal capture the odorous compound.

23. (Original) A method as defined in claim 22, wherein said polyalkylimine is polyethyleneimine, polypropyleneimine, or a dendrimer thereof.

24. (Canceled)

25. (Original) A method as defined in claim 22, wherein said coordination complex is chemically grafted to one or more molecules present on said cellulosic fibers.

26. (Original) A method as defined in claim 22, further comprising combining high-surface area particles with said transition metal and said polyalkylimine, said particles acting as a carrier for said coordination complex.

27. (Original) A method as defined in claim 26, wherein said particles are formed from silica, alumina, or combinations thereof.

28. (Original) A method as defined in claim 26, wherein said particles have an average size of less than about 100 nanometers and a surface area of from about 50 to about 1000 square meters per gram.

29. (Original) A method as defined in claim 22, wherein said odorous compound is selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

30. (Original) A method as defined in claim 22, wherein said polyalkylimine contains positively charged ligands.

31-60. (Canceled)